Most Repeated Questions in JEE Main Chemistry from Quantum Numbers

Q: Which of the following is/are not correct with respect to energy of atomic orbitals of hydrogen atom?
(A) 1s < 2p < 3d < 4s
(B) 1s < 2s = 2p < 3s = 3p
(C) 1s < 2s < 2p < 3s < 3p
(D) 1s < 2s < 4s < 3d
Choose the correct answer from the options given below :
(a) (A) and (B) only
(b) (A) and (C) only
(c) (B) and (D) only
(d) (C) and (D) only

Q: Compare the energies of following sets of quantum numbers for multi electron system.
(A) n = 4, 1 = 1
(B) n = 4, 1 = 2
(C) n = 3, l = 1
(D) n = 3, 1 = 2
(E) n = 4, 1 = 0
Choose the correct answer from the options given below:
(A) (E) > (C) > (A) > (D) >(B)
(B) (B) > (A) > (C) > (E) > (D)
(C) (C) < (E) < (D) < (A) < (B)
(D) (E) < (C) < (D) < (A) < (B)

Q: The four quantum numbers for the electron in the outermost orbital of potassium (atomic no. 19) are
(A) n = 3, l = 0, m = 1, s = + ½
(B) n = 4, l = 0, m = 0, s = + ½
(C) n = 2, l = 0, m = 0, s = + ½
(D) n = 4, l = 2, m = - 1, s = + ½

Q: Maximum number of electrons that can be accommodated in shell with n = 4 are

Q: The correct set of four quantum numbers for the valence electron of rubidium atom (Z = 37) is:

Q: The number of s-electrons present in an ion with 55 protons in its unipositive state is